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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/882,113

06/15/2001

Shuo-Yen Robert Li

Li 4

9816

570

7590

11/16/2005

AKIN GUMP STRAUSS HAUER & FELD L.L.P.  
ONE COMMERCE SQUARE  
2005 MARKET STREET, SUITE 2200  
PHILADELPHIA, PA 19103

EXAMINER

PHAN, TRI H

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/882,113	<b>Applicant(s)</b> LI ET AL.	
	<b>Examiner</b> Tri H. Phan	<b>Art Unit</b> 2661	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 40-78 is/are pending in the application.
- 4a) Of the above claim(s) 1-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 44-50 is/are allowed.
- 6) ☐ Claim(s) 40-43 and 51-78 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/17/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment/Arguments*

1. This Office Action is in response to the Response/Amendment filed on July 15<sup>th</sup>, 2005.  
Claims 1-39 are now canceled. Claims 40-78 are now pending in the application.

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 40, 42, 51, 55, 58, 61, 64, 68, 70, 73, and 76-78 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claim 40, the limitation "A method for configuring an equivalent  $2n \times 2n$   $k$ -stage bit-permuting network based on a given  $2n \times 2n$   $k$ -stage bit-permuting network having a representation ..., the method comprising:" is considered as field of use (preamble); the limitation "*specifying a permutation  $k$  on integers from 1 to  $n$  that preserves  $n$ , and*" is considered as data gathering; and the limitation "*implementing the equivalent network as ..., or  $k$ .*" is considered as in significant post solution.

The claim 1 in question can be considered in view of *Walter*, 205 USPQ 397 at 407, (CCPA, 1980), "if the end-product of a claimed invention is a pure number, as in *Bension and Flook*, the invention is non-statutory regardless of any post-solution activity which makes it

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available for use by a person or machine for other purposes.” and “Also, in Walter, a Jepson preamble was not regarded as limiting the “subject matter as a whole,” so as to avoid the > 35 U.S.C.< 101 rejection. Similar, preliminary data gathering step may not affect the “subject matter as a whole” assessment.”

Claim 1 is directed to the nonstatutory processes, which comprise the method for “specifying a permutation  $k$  on integers from 1 to  $n$  that preserves  $n$ , and implementing the equivalent network as ..., or  $k$ .”, that do nothing more than solve mathematic problems, i.e. specifying a permutation  $k$  on integer and implementing the equivalent network, which do nothing more than consist solely of mathematical operations without practical application, or manipulate abstract ideas or concepts are more complex to analyze; and the “acts” of the claimed process are not being applied to appropriate subject matter and thus cannot constitute a statutory process.

Same 35 U.S.C. 101 rejection’s reason for claims 42, 51, 55, 58, 61, 64, 68, 70, 73, and 76-78.

#### ***Allowable Subject Matter***

3. Claims 41, 43, 45-47, 52-54, 56-57, 59-60, 62-63, 65-67, 69, 71-72, and 74-75 are rejected by virtue of their dependence from claims 40, 42, 51, 55, 58, 61, 64, 68, 70, 73, and 76-78 as in Part 2 above of this Office action and.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (571) 272-3126.

**Any response to this action should be mailed to:**

**Commissioner of Patents and Trademarks**

Washington, D.C. 20231

**or faxed to:**

**(571) 273-8300**

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

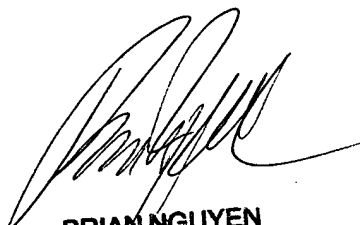
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tri H. Phan  
November 9, 2005



**BRIAN NGUYEN**  
**PRIMARY EXAMINER**